

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
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14. (Canceled)
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16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)

22. (Original) The method of claim 15 wherein the structure is a molded structure and the dielectric material is a thermoplastic or a thermoset resin.
23. (Original) A method of making a high impedance surface comprising the steps of:
- (a) forming a structure from sheet metal, the structure having a plurality of openings therein with confronting sidewalls on the sides of the openings, the structure also having a plurality of protrusions projecting from a major surface thereof; and
 - (b) joining said structure to additional sheet metal such that ends of said protrusions remote from said major surface are coupled to the additional sheet metal.
24. (Original) The method of claim 23 wherein the additional sheet metal is a generally planar sheet metal.
25. (Original) The method of claim 23 wherein the protrusions have a greater depth than do the sidewalls.
26. (Original) The method of claim 23 wherein the sidewalls are spaced a distance from the additional sheet metal.
27. (Original) The method of claim 23 wherein the sidewalls which confront one another are disposed parallel to each other.
28. (Original) The method of claim 23 wherein said sidewalls define a repeating geometric pattern.
29. (Original) The method of claim 28 wherein the repeating geometric pattern is a pattern of square-shaped cells.

30. (Original) A high impedance surface including:

(a) a molded structure having a repeating pattern of sidewall surfaces, the sidewall surfaces meeting a first major surface of said molded structure; and

(b) a metal layer on said molded structure, the metal layer covering at least a portion of a second major surface of said molded structure to define a ground plane, the metal layer also covering said sidewalls and at least portions of said first major surface.

31. (Original) The high impedance surface of claim 30 wherein the molded structure further includes a repeating pattern of holes therein, the holes penetrating the structure between the first and second major surfaces thereof, and wherein the metal layer is disposed in or fills said holes to thereby interconnect sidewalls with other sidewalls via the metal layer on said second major surface and in said holes.

32. (Original) The high impedance surface of claim 30 further including trenches in said first major surface, the sidewall surfaces joining said first major surface via said trenches.

33. (Original) The high impedance surface of claim 30 wherein said sidewall surfaces have a height which varies across said high impedance surface as a function of location on said high impedance surface.